

**“Plans are nothing . . . Planning is Everything.”**

DWIGHT D. EISENHOWER, 34TH PRESIDENT OF THE UNITED STATES

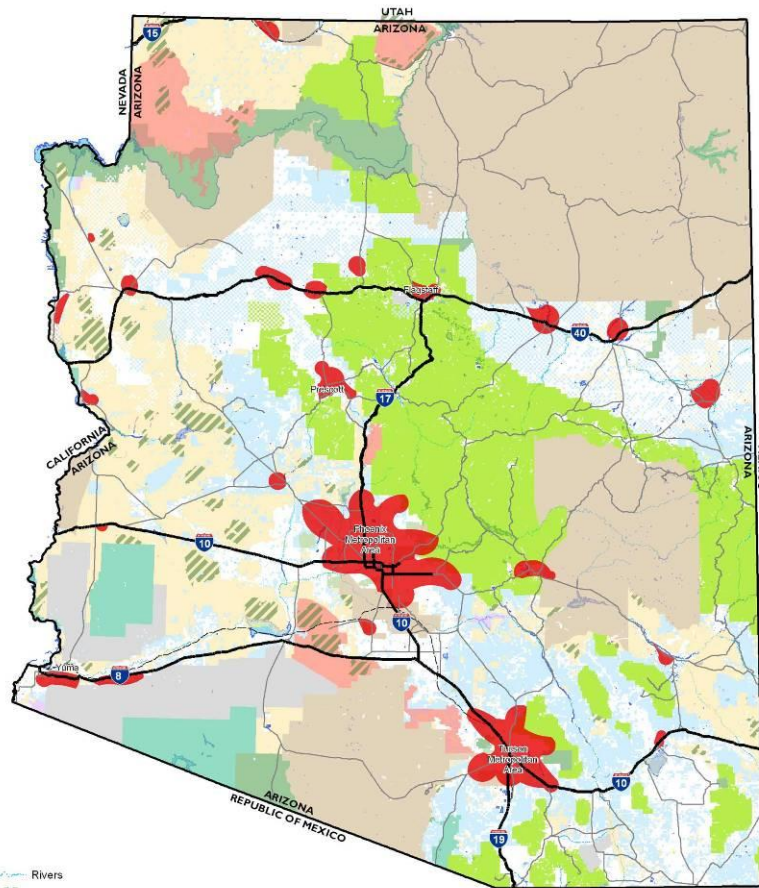


# Arizona's Framework Studies

Arizona State Legislature  
Blue Ribbon Transportation Committee

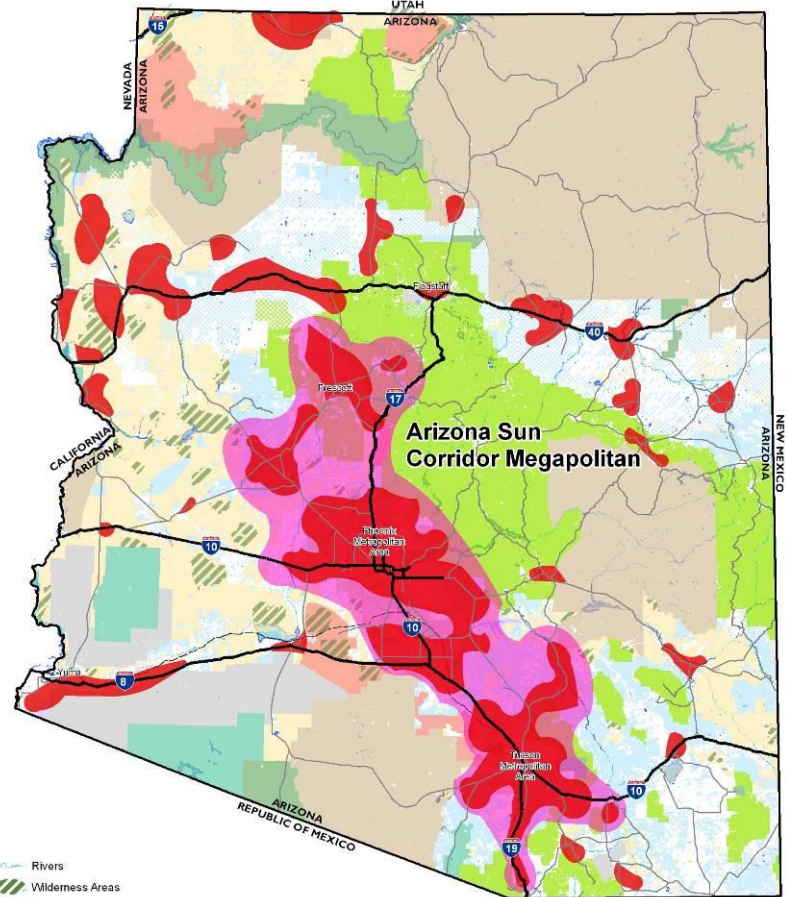
December 4, 2007

# Potential Statewide Growth



- Rivers
- Wilderness Areas
- National Monuments
- Population/Employment Centers
- Land Ownership
  - Bureau of Land Management
  - Indian Communities
  - Local or State Parks
  - Military
  - National Park Service
  - Private
  - State Land
  - State Wildlife Area
  - US Forest Service
  - US Fish and Wildlife Service

2005 Population/  
Employment Centers



- Rivers
- Wilderness Areas
- National Monuments
- Population/Employment Centers
- Arizona Sun Corridor Megapolitan
- Land Ownership
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2050 Population/  
Employment Centers

# County Population Projections

Source: Arizona Department of Employment Security and COG/MPO Planning Agencies

| County                  | 2005             | 2030              | 2050              |
|-------------------------|------------------|-------------------|-------------------|
| Apache                  | 74,600           | 93,500            | 104,200           |
| Cochise                 | 134,800          | 187,700           | 212,800           |
| Coconino                | 132,800          | 173,800           | 198,200           |
| Gila                    | 55,100           | 70,000            | 78,300            |
| Graham                  | 35,900           | 44,600            | 49,900            |
| Greenlee                | 8,300            | 8,300             | 9,100             |
| La Paz                  | 21,500           | 28,100            | 30,900            |
| Maricopa                | 3,700,000        | 6,100,000         | 8,100,000         |
| Mohave                  | 194,900          | 330,600           | 401,000           |
| Navajo                  | 112,700          | 165,600           | 192,400           |
| Pima                    | 921,500          | 1,600,000         | 1,700,000         |
| Pinal                   | 276,000          | 1,300,000         | 2,200,000         |
| Santa Cruz              | 45,300           | 71,000            | 84,700            |
| Yavapai                 | 212,700          | 355,400           | 418,700           |
| Yuma                    | 195,500          | 316,100           | 377,600           |
| <b>State of Arizona</b> | <b>6,100,000</b> | <b>11,000,000</b> | <b>14,100,000</b> |



**“Make no little plans; they have no magic to stir men’s blood  
and probably themselves will not be realized. Make big plans;  
aim high in hope and work, remembering that a noble, logical  
diagram once recorded will not die.”**

DANIEL H. BURNHAM, AMERICAN ARCHITECT AND CHICAGO URBAN PLANNER



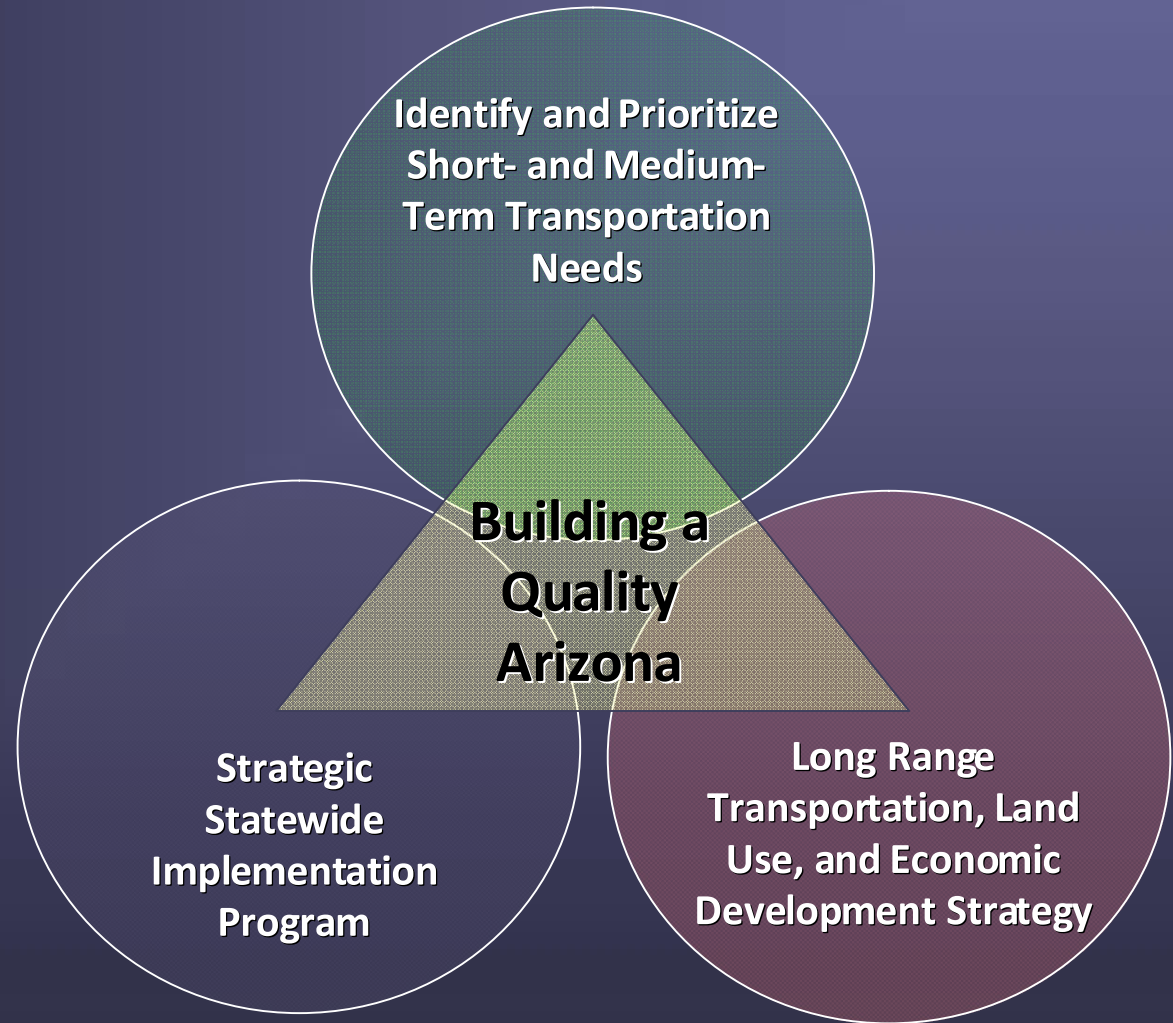
# **Mobility Reconnaissance Study**

A project by  
the ARIZONA COG/MPO ASSOCIATION  
and the ARIZONA DEPARTMENT OF TRANSPORTATION

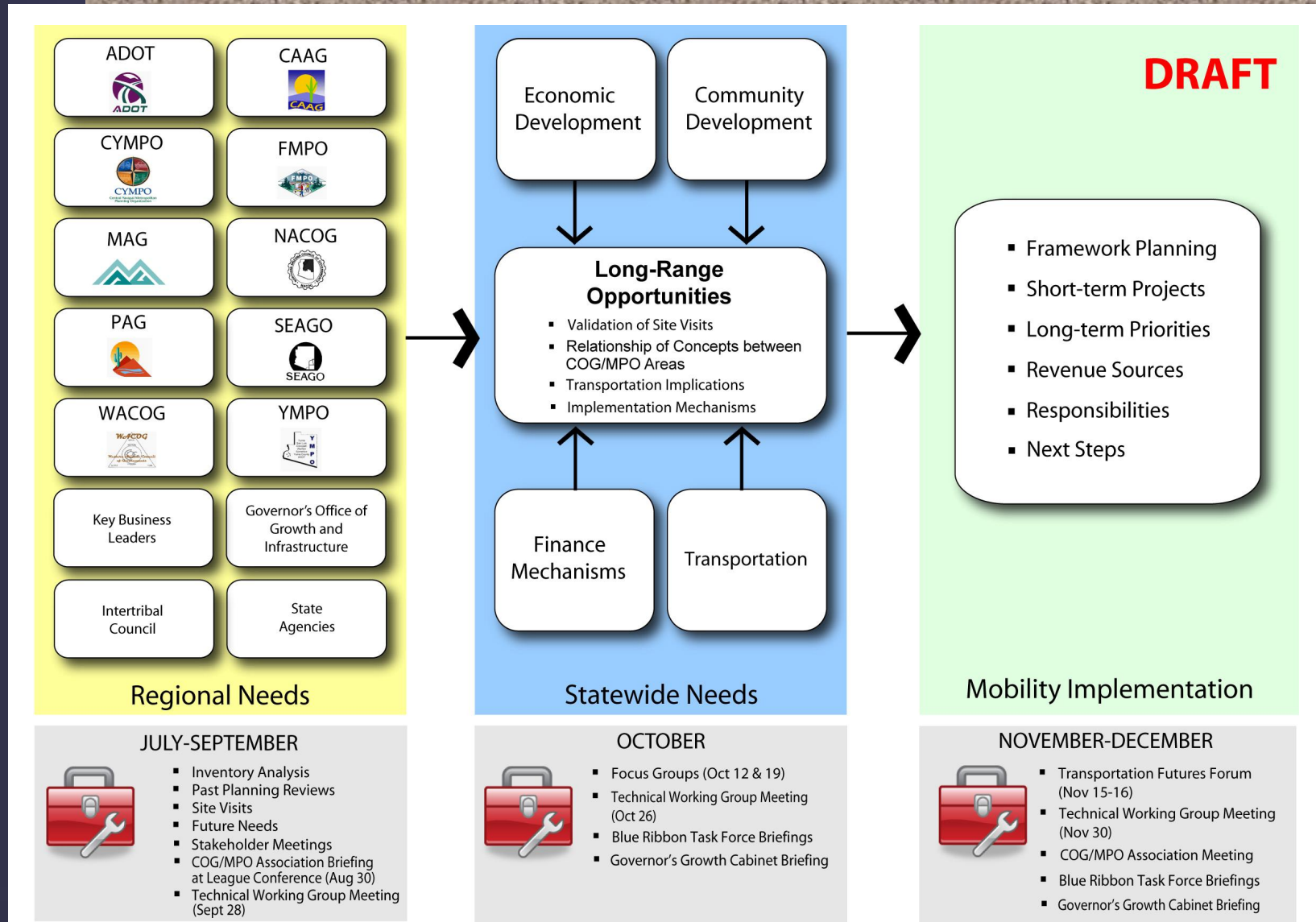


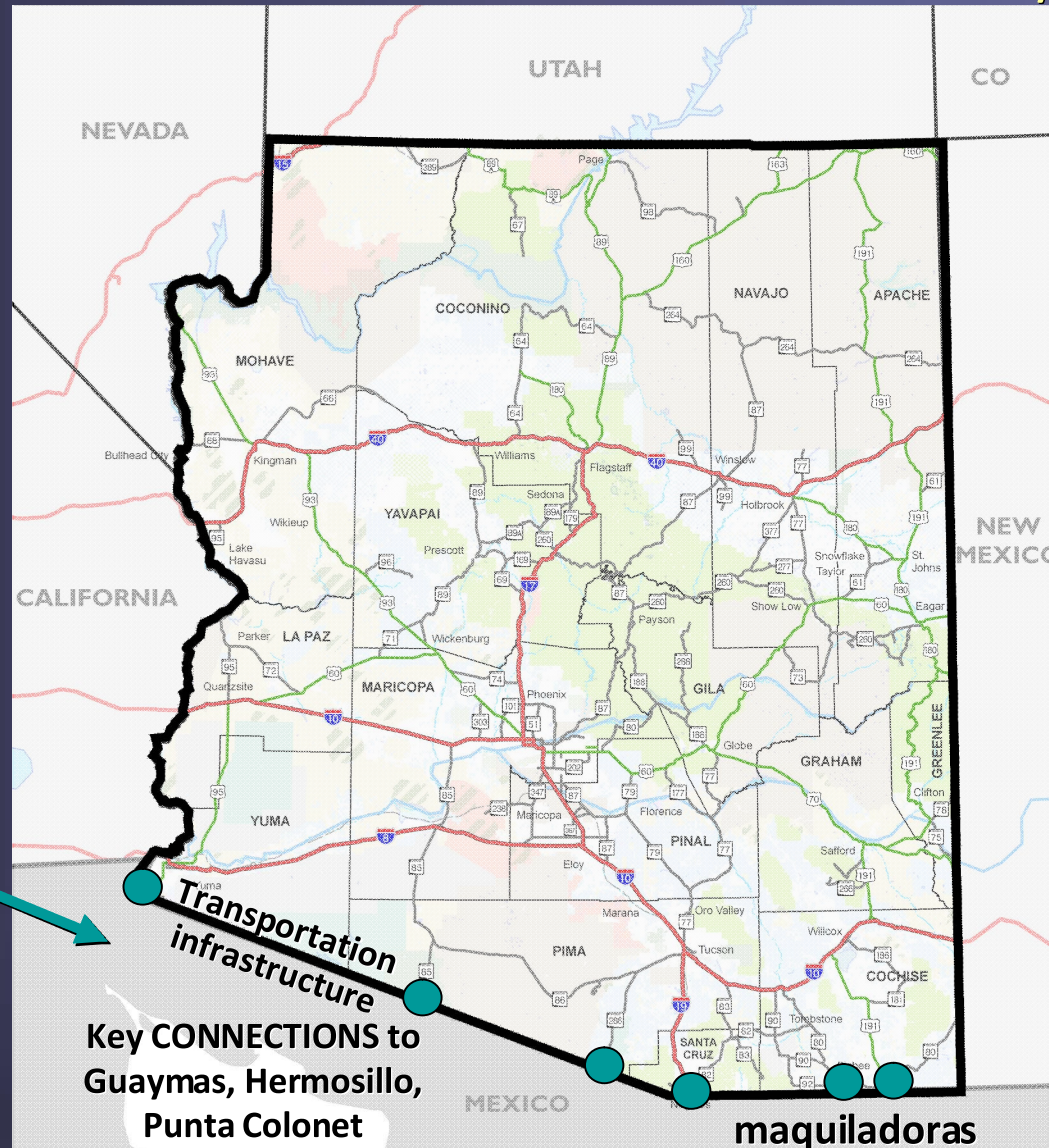
# Contributions to the Quality of Life

STATEWIDE MOBILITY RECONNAISSANCE STUDY



# Approach





Mexico's fastest growing states are in the north (Sonora, Chihuahua, and Nuevo Leon)

Transportation infrastructure

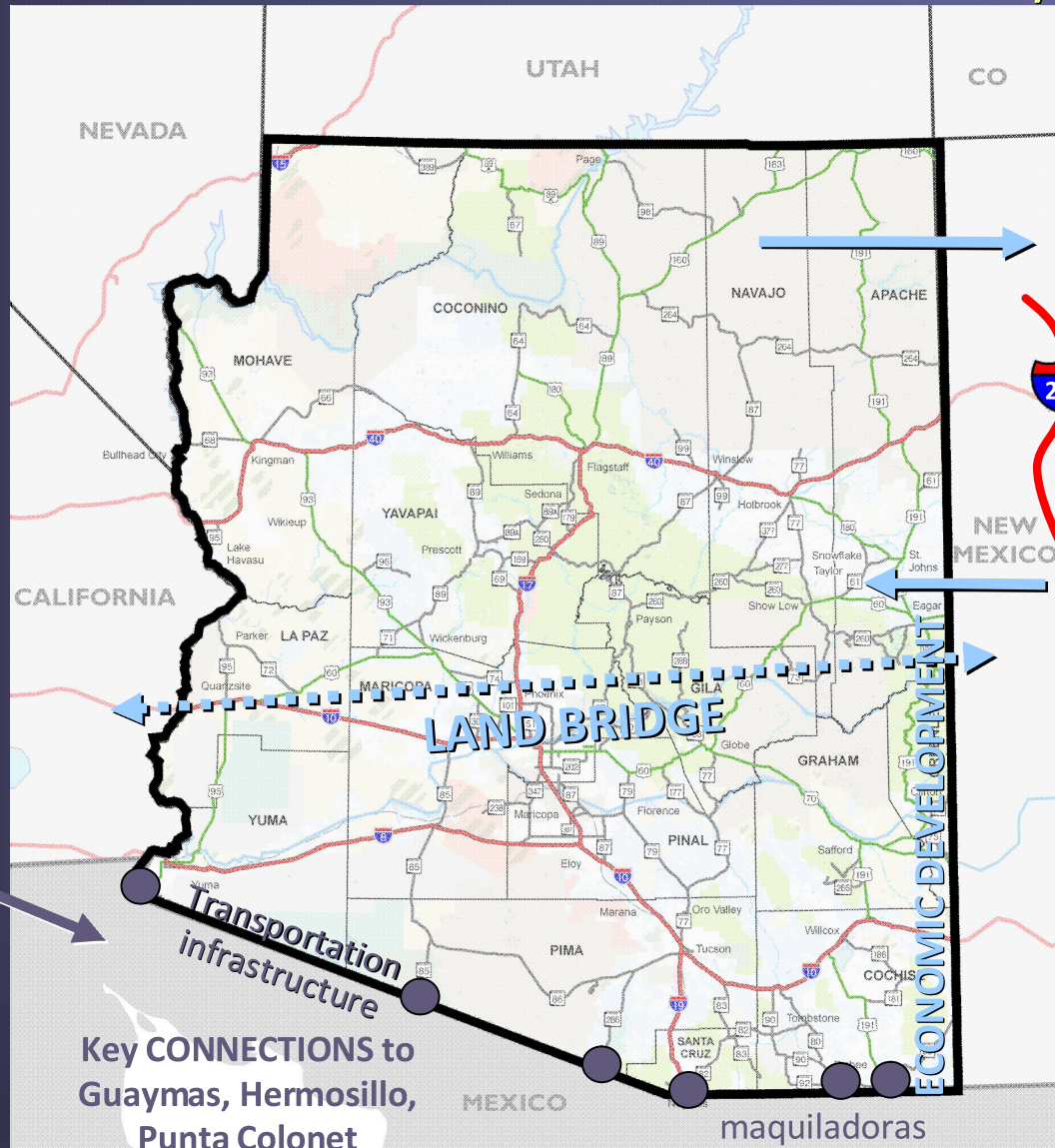
Key CONNECTIONS to Guaymas, Hermosillo, Punta Colonet

maquiladoras



# New Mexico

COG/MPO DISCUSSIONS



Navajo Nation  
relates more to  
New Mexico

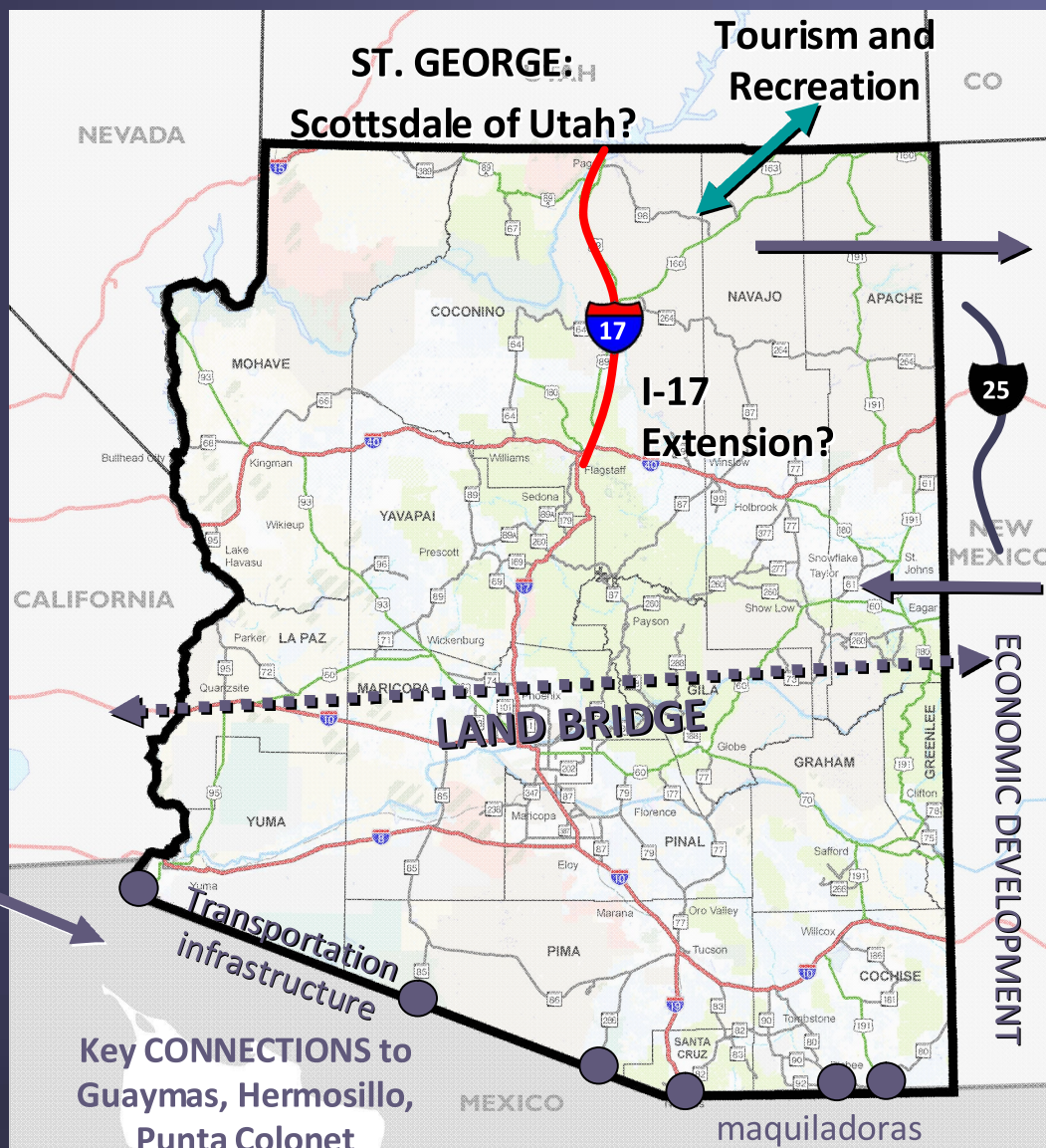
**25** High-tech  
industry along  
I-25 Corridor

Eager/ Springerville  
provide  
shopping/services to  
western New Mexico

Mexico's fastest  
growing states are  
in the north  
(Sonora,  
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Key CONNECTIONS to  
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Navajo Nation relates more to New Mexico

High-tech industry along I-25

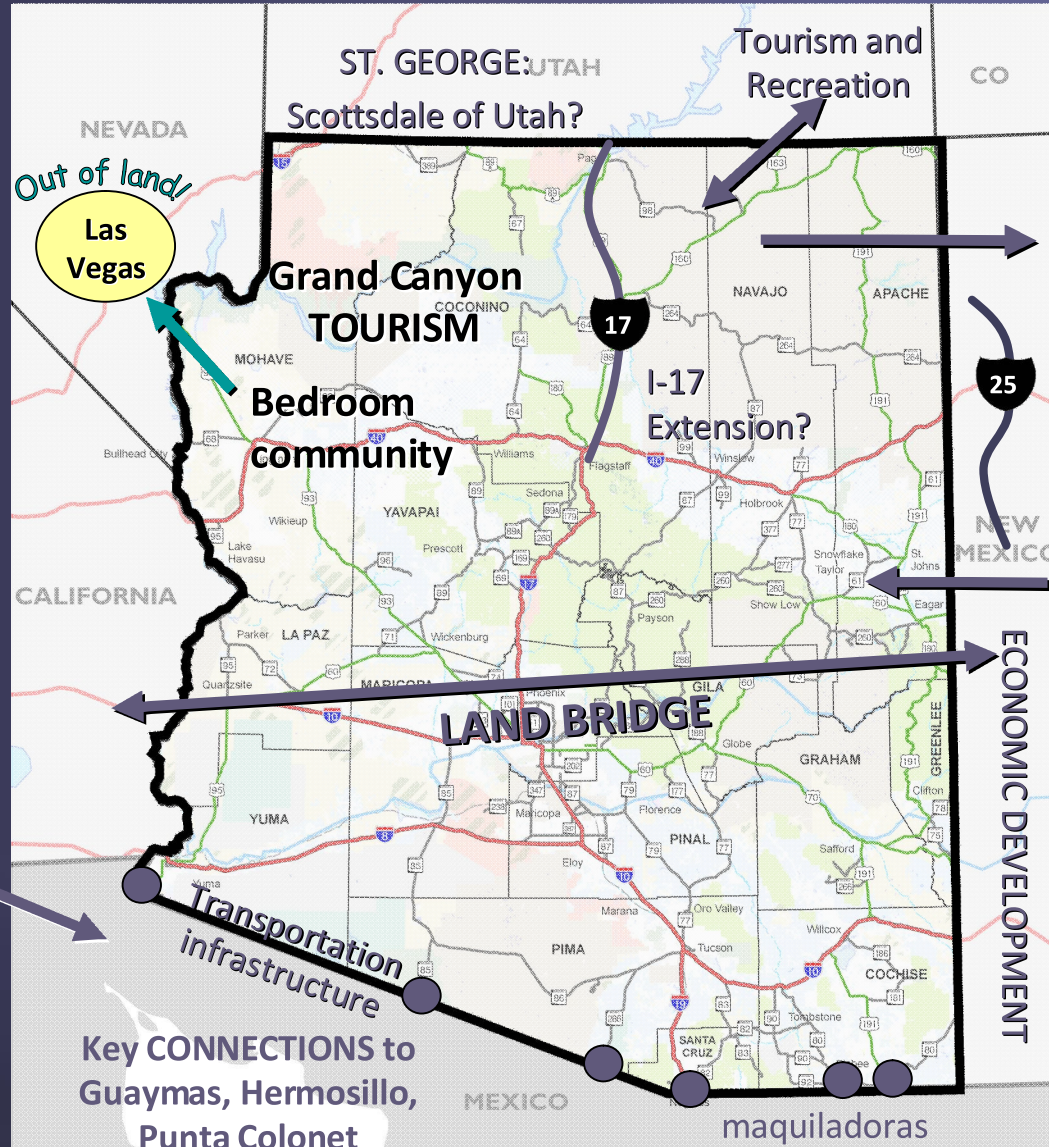
Eager/ Springerville provide shopping/ services to Western New Mexico

Mexico's fastest growing states are in the north (Sonora, Chihuahua, and Nuevo Leon)



# Nevada

## COG/MPO DISCUSSIONS



Navajo Nation relates more to New Mexico

High-tech industry along I-25

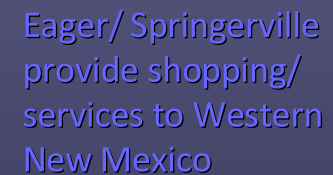
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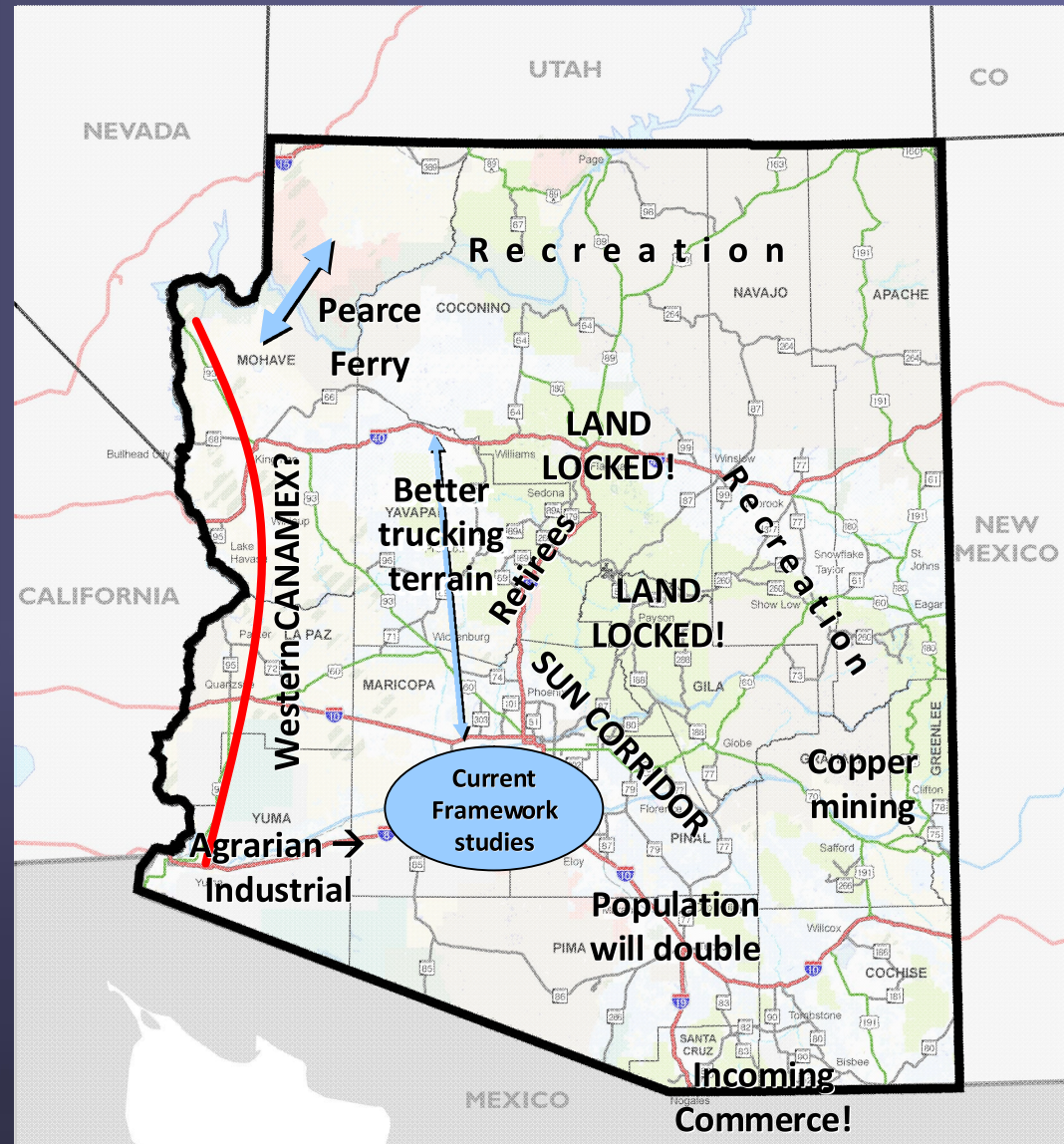


## COG/MPO DISCUSSIONS

Mexico's fastest growing states are in the north (Sonora, Chihuahua, and Nuevo Leon)

**bqaz**

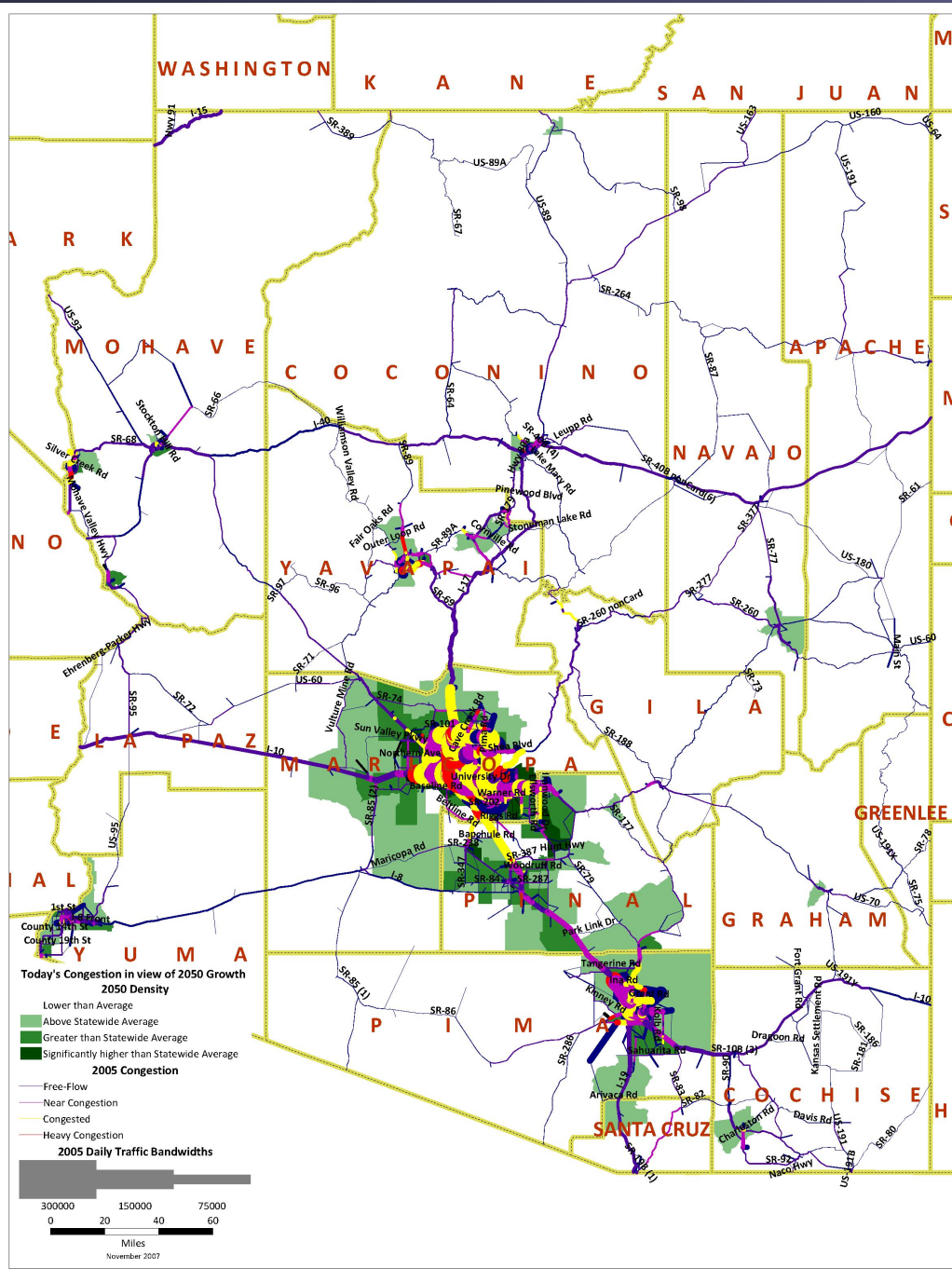
- **Commercial Trucking**
  - Distribution throughout Southwest USA
  - Elevation in Central Arizona (SR-89/SR-69)
  - US-95/SR-95 Corridor
  - CANAMEX
- **Natural Resources**
  - Copper in Safford Area
- **Emerging Industries**
  - Welton Oil Refinery
  - Warehousing
- **Agriculture**
- **Sun Corridor Megapolitan**
  - Prescott
  - Phoenix
  - Tucson
- **Recreation and Tourism**





# Today's Traffic

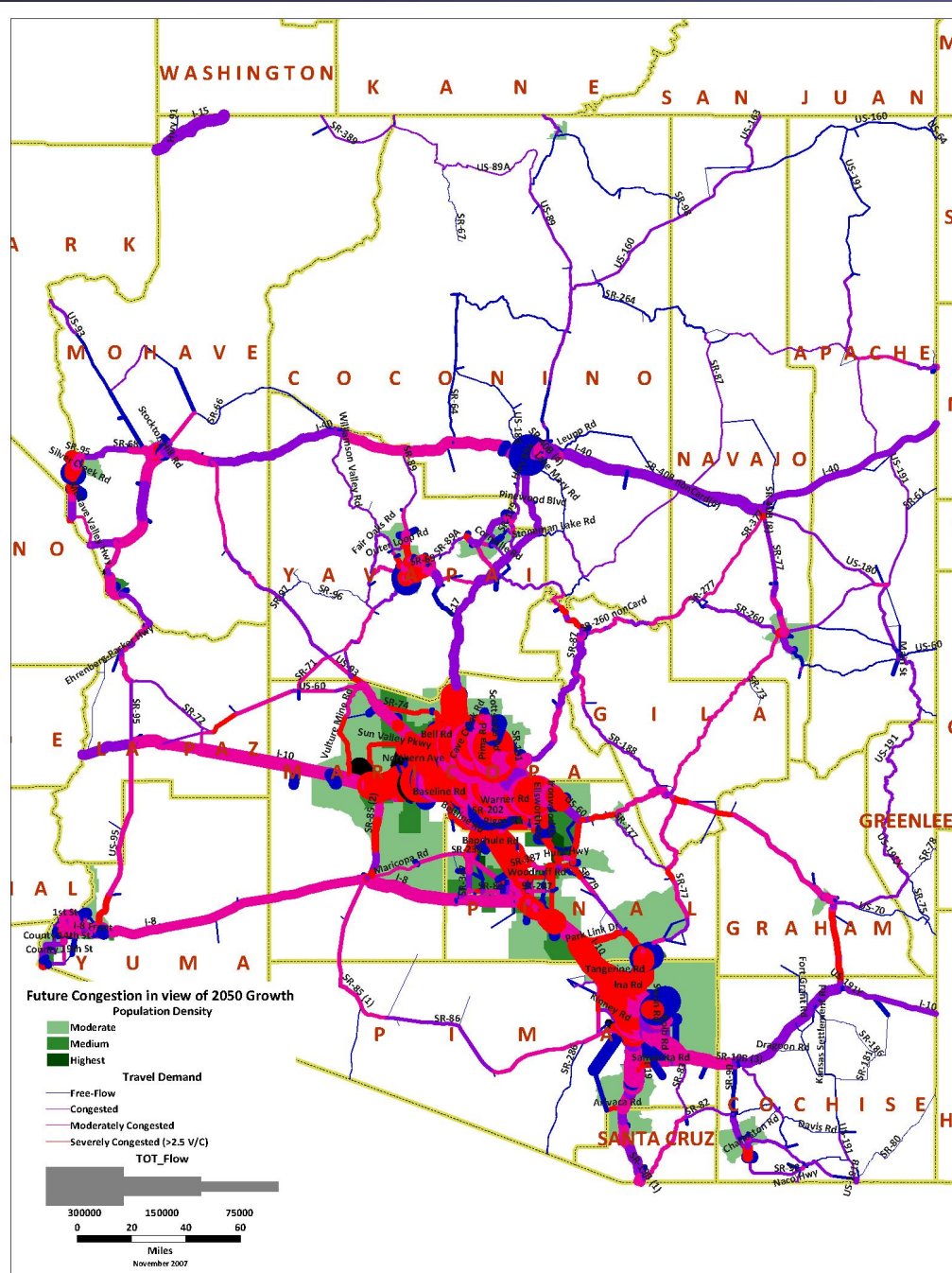
- Little transportation infrastructure in the emerging populated areas
- Shaded areas represent 90% of Arizona's Population in 2050 (14 million)
- Represent 10% of Arizona land





# Future Traffic

- Demand over **100,000 vpd** on Interstate 10 from California to Tucson
- Demand over **75,000 vpd** on Interstate 40 from California to Holbrook
- Demand over **90,000 vpd** on segments of
  - Interstate 8
  - Interstate 17
  - Interstate 19
- 4-lane rural freeway capacity is **70,000 vehicles per day (vpd)**



**“Take time to deliberate; but when the time for action  
arrives, stop thinking and go in.”**

ANDREW JACKSON, SEVENTH PRESIDENT OF THE UNITED STATES



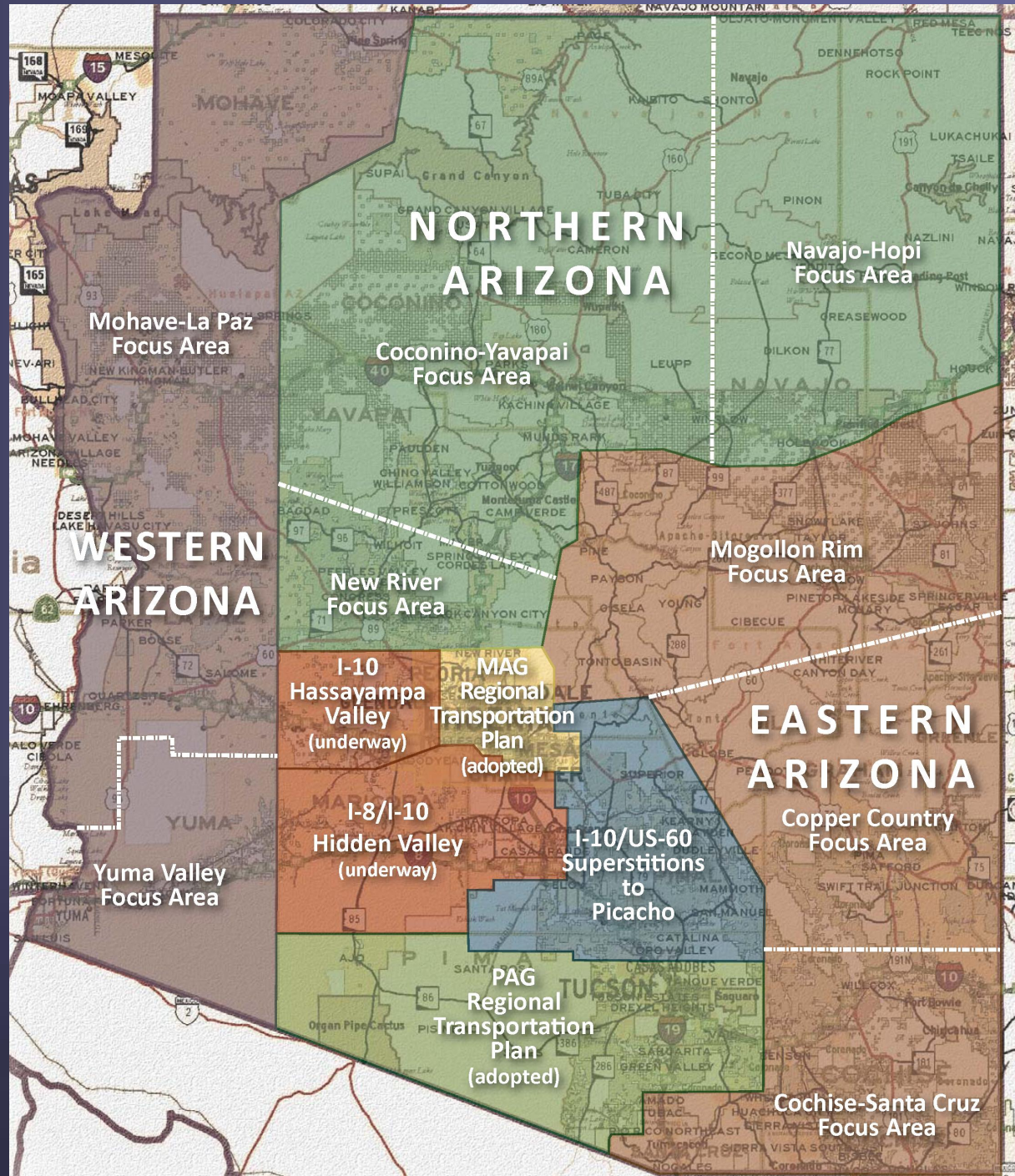
# **Arizona's Framework Study Plan**

2008 to 2009 and beyond . . .



# Study Areas

As agreed to by the  
Arizona COG/MPO  
Association and the  
Arizona Department of  
Transportation  
October 4, 2007





# Framework Study Objectives

- Identify needs and potential improvements to Arizona's transportation network:
  - State highways – existing and new
  - Regional facilities, e.g. parkways
  - Major arterials
  - Bus
  - Rail
  - Bicycle and pedestrian
- Long-range focus:
  - 2030
  - 2050



# Framework Approach

- Studies will cover the statewide multimodal transportation system
- Analysis of state/county/local roads and public transportation will be integrated to develop a transportation network for each region
- Connectivity between regions will be analyzed
- Extensive outreach to stakeholders and partners:
  - General public
  - Elected officials
  - Tribes
  - Counties, cities, towns, COGs, MPOs
  - Business community
  - Land developers and others
  - Military Installations
  - Conservation Groups





# Framework Study Tasks

- Identify current conditions
  - Population, employment
  - Travel demand
  - Environmental issues
- Forecast future conditions
  - Use computer modeling to project conditions in 2030 and 2050



# Framework Study Tasks

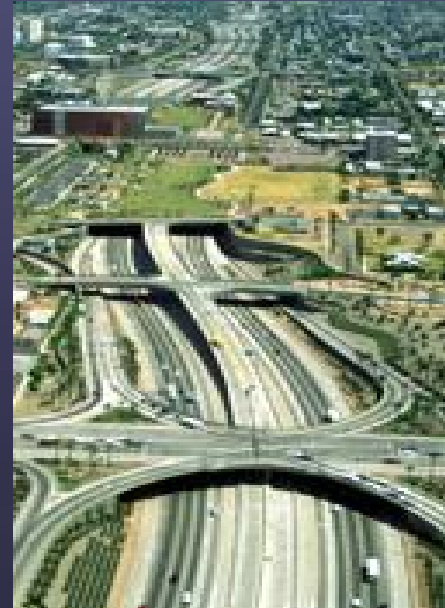
- Develop transportation network alternatives:
  - Integrate multimodal alternatives
  - Based on known development, topography, environmental issues, projected travel demand, local standards, stakeholder input
  - Screen for “fatal flaws”





# Framework Study Tasks

- Evaluate network alternatives:
  - Identify specific projects that comprise each network alternative
  - Estimate costs
  - Solicit stakeholder input



# Framework Study Tasks

- Develop network recommendations:
  - Refine estimates for the selected network to include capital, operation, construction, right of way, and maintenance costs
  - Develop and implement a process to prioritize projects that comprise the network
  - Identify responsible jurisdictions, potential funding, and a general timeline for the implementation of projects





# Framework Summary

- Framework studies will identify multimodal, multi-jurisdictional needs and potential improvements to Arizona's transportation network on a statewide basis
- The participation of all stakeholders is essential to the framework process



# Why do we need Frameworks?

- “Getting in front of Growth,” by understanding:
  - Land use, socio-economic, and development patterns
  - Programmed improvements
  - Regional connections
  - System continuity
  - Corridor preservation



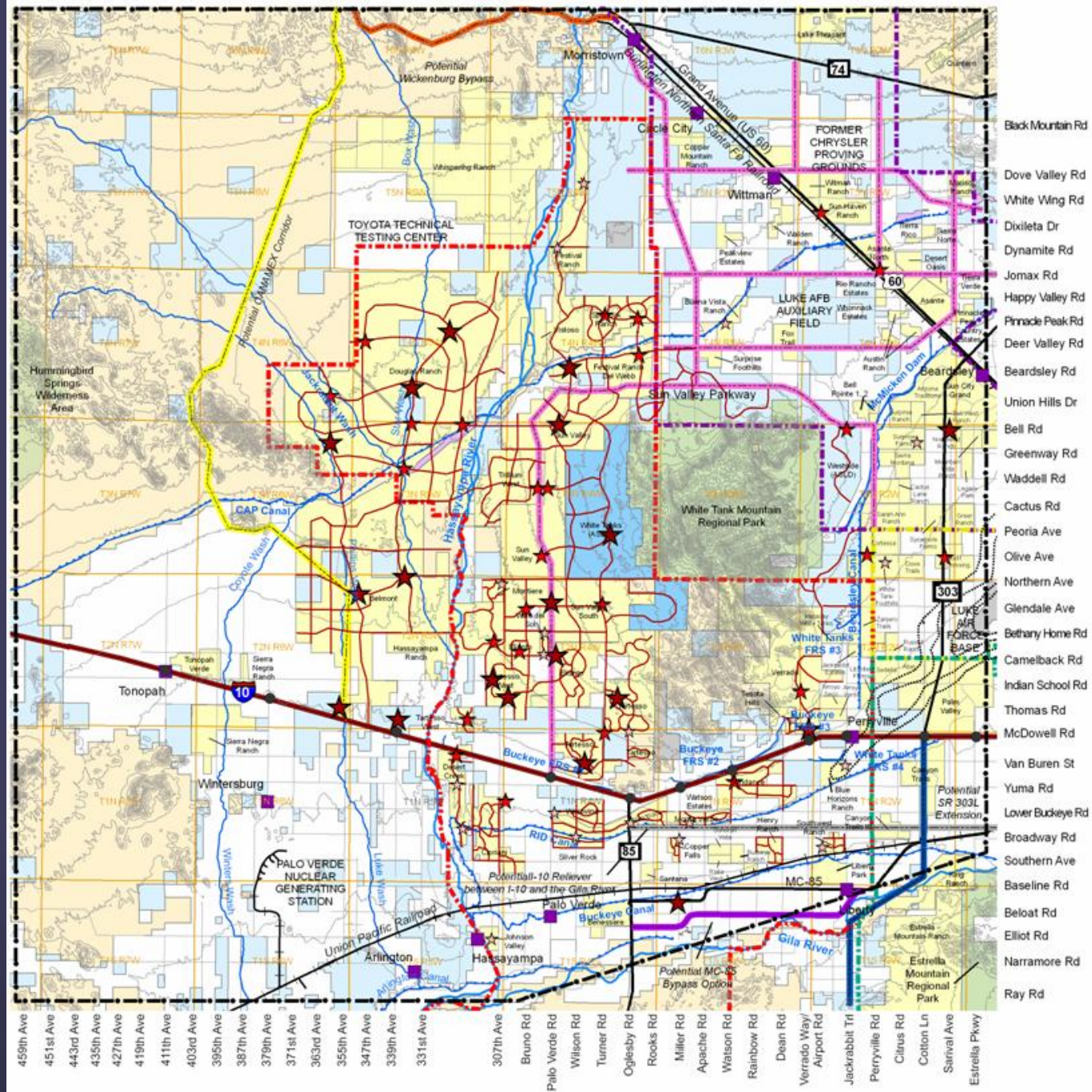


**“The will to win is important, but the will to prepare is vital.”**

JOE PATERNO, PENNSYLVANIA STATE UNIVERSITY FOOTBALL COACH



## **Interstate 10-Hassayampa Valley**





# Projections

INTERSTATE 10-HASSAYAMPA VALLEY

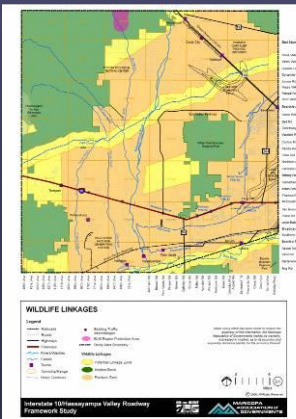
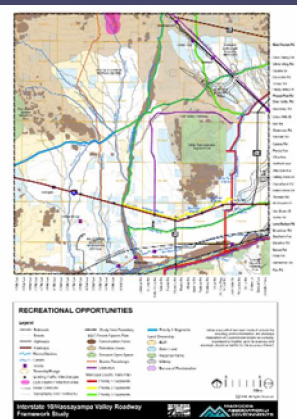
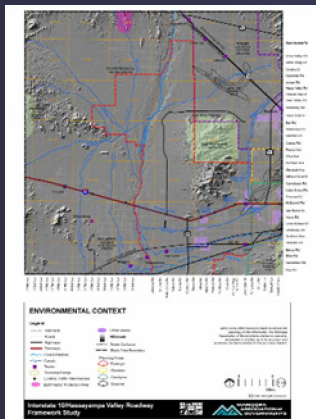
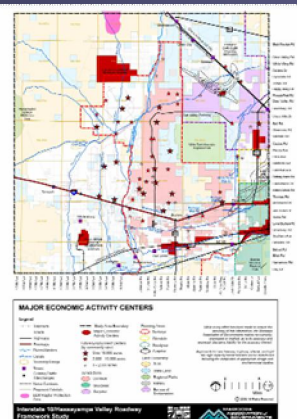
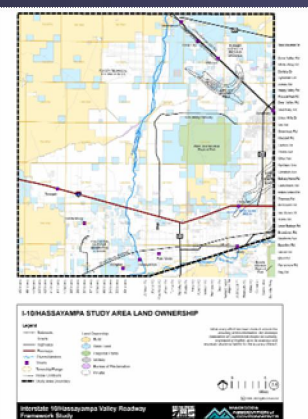
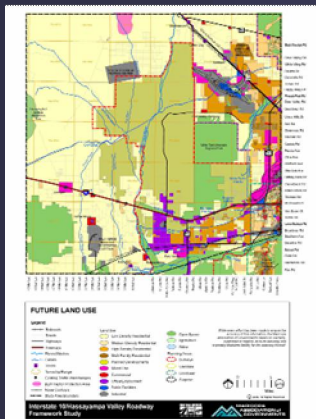
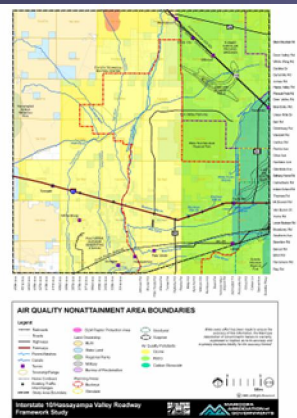
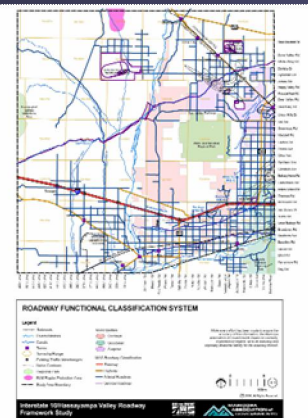
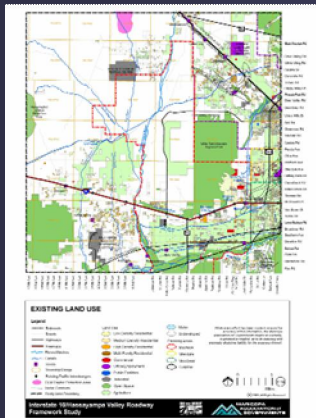
|                  | Dwelling<br>Units | Population       | Employment     |
|------------------|-------------------|------------------|----------------|
| 2005             | 55,000            | 138,000          | 48,000         |
| 2030             | 395,000           | 948,000          | 379,000        |
| <b>Build-Out</b> | <b>906,000</b>    | <b>2,862,000</b> | <b>836,000</b> |



# Environmental Scan

INTERSTATE 10-HASSAYAMPA VALLEY

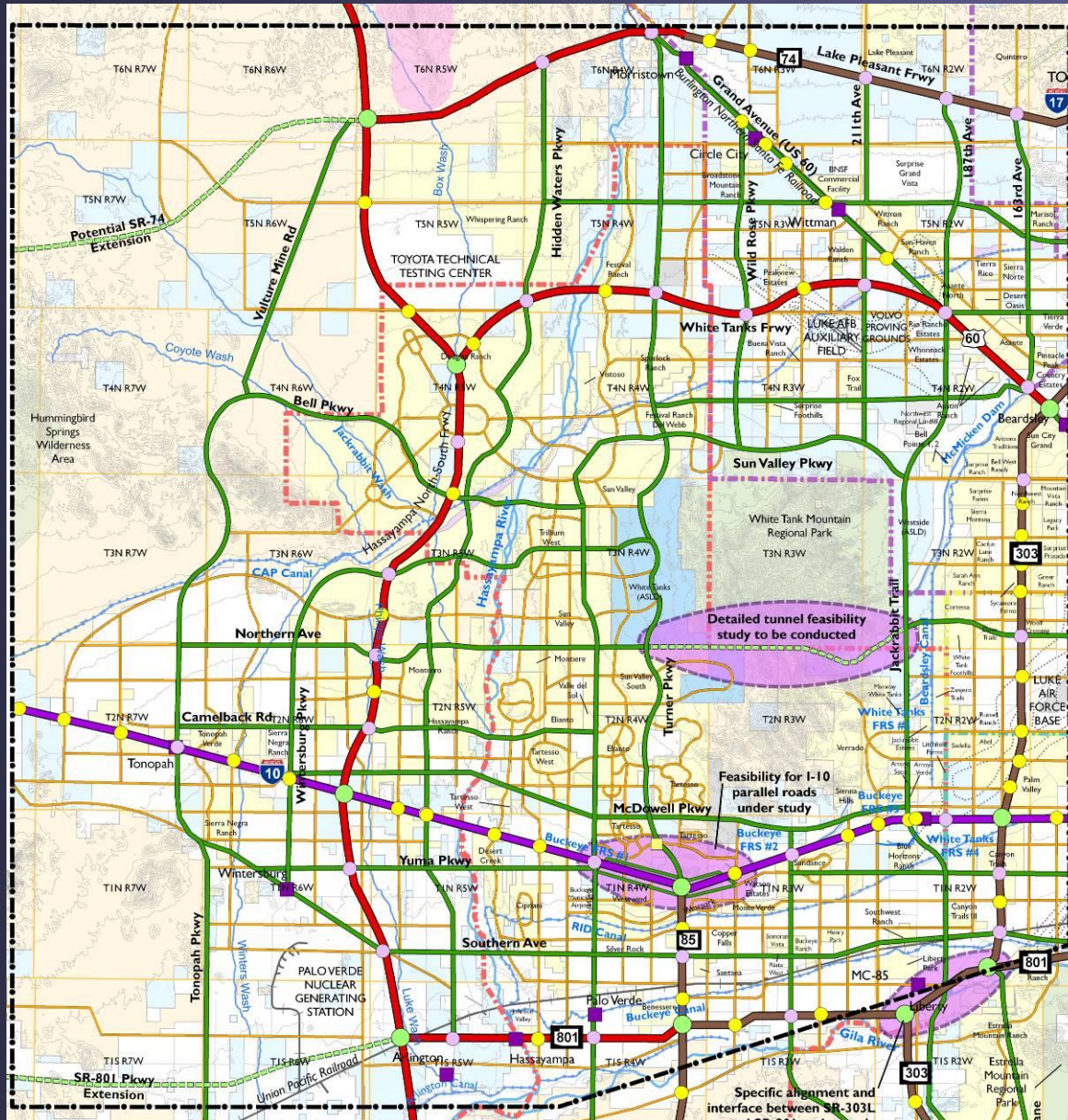
- Existing Land Use
- Future Land Use
- Environmental Context
- Functional Classification
- Land Ownership
- Public Land Management
- Air Quality
- Major Economic Centers
- Utility Corridors
- Drainage
- Wildlife Corridors





# Transportation Framework

## INTERSTATE 10-HASSAYAMPA VALLEY



### Freeways

- Existing Freeway Improvements
- Future RTP Freeways
- New Freeway Proposals

### Parkways

- New Parkway Alternatives
- New Parkway Proposals

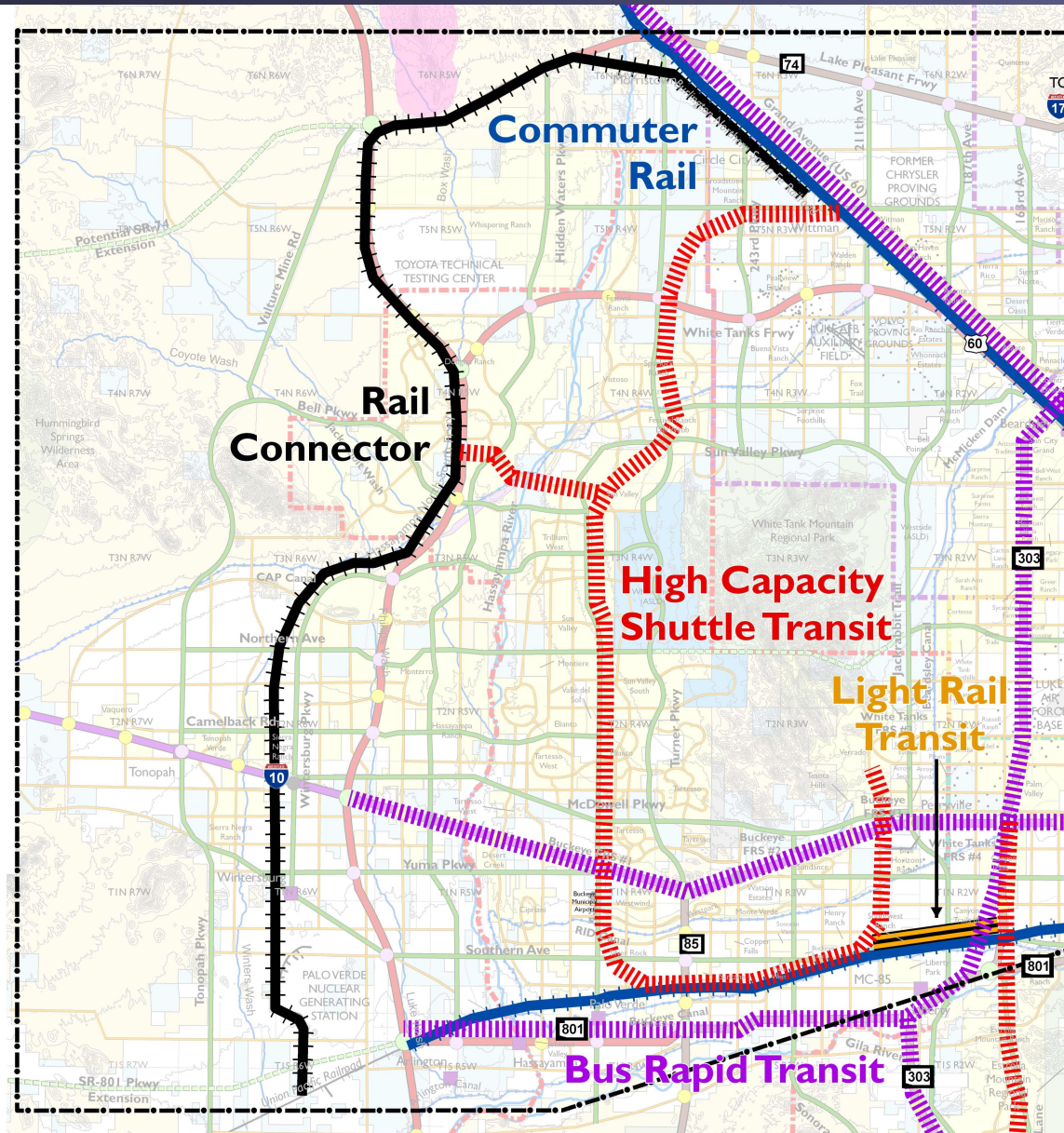
### Major Arterials

- Future Major Arterial Network








# Transit Framework

## INTERSTATE 10-HASSAYAMPA VALLEY



### Potential High Capacity Transit

-  Bus Rapid Transit
-  High Capacity Shuttle Transit
-  Commuter Rail
-  Freight and Passenger Rail Connector
-  Light Rail Transit



**“If you are planning for one year, grow rice.  
If you are planning for 20-years, grow trees.  
If you are planning for centuries, grow people.”**

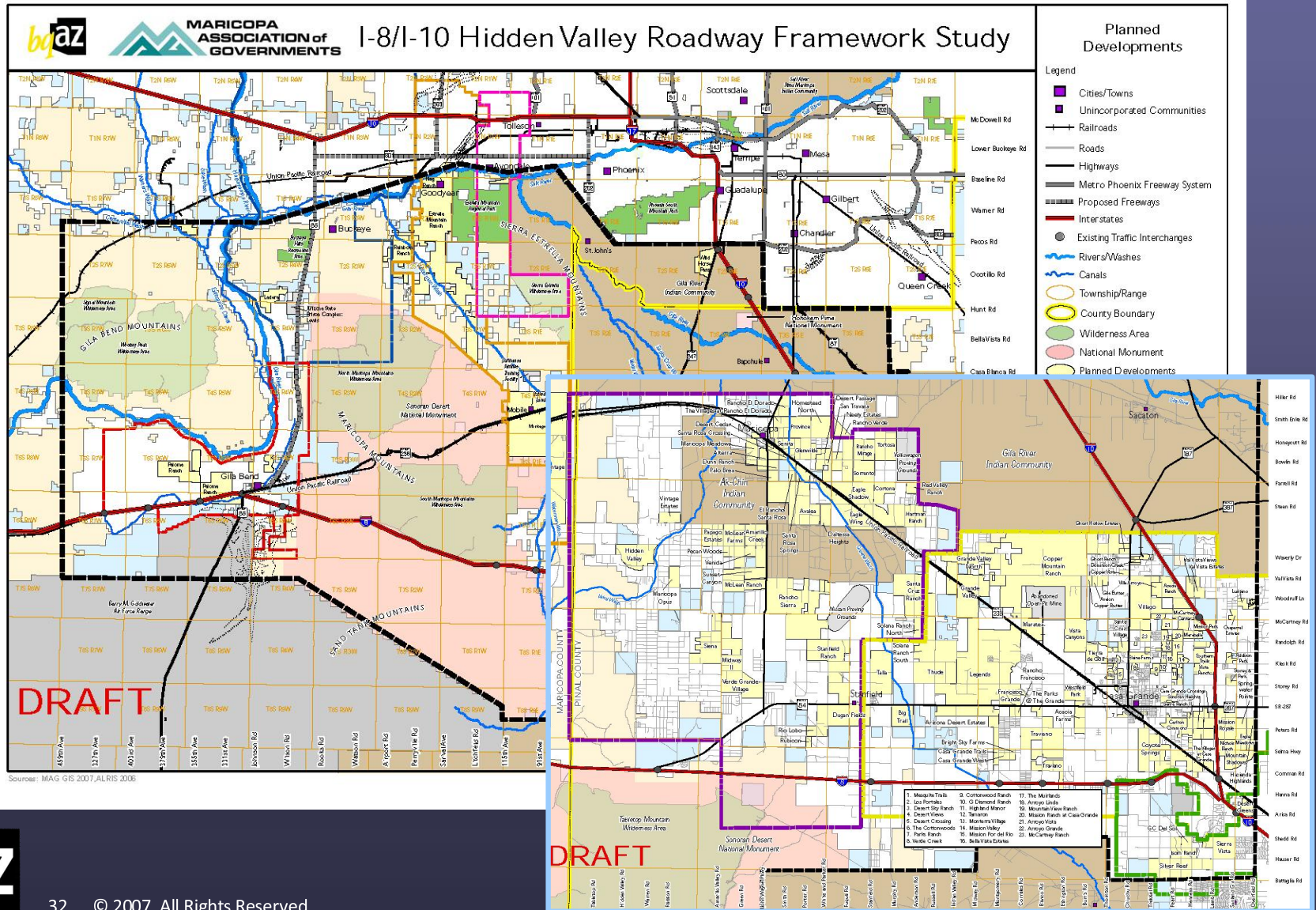
CHINESE PROVERB



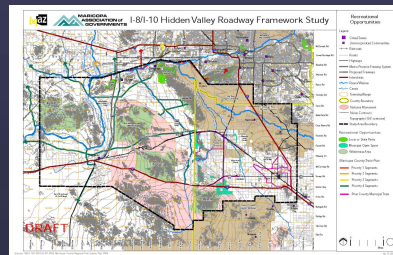
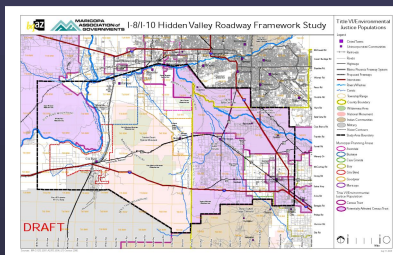
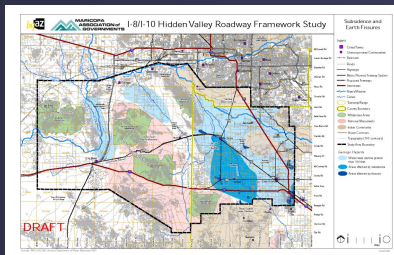
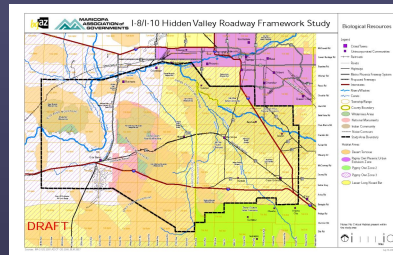
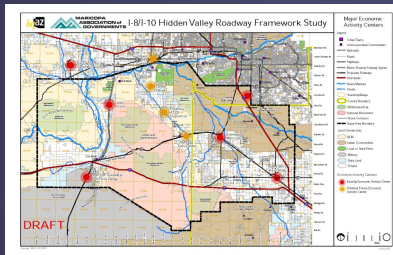
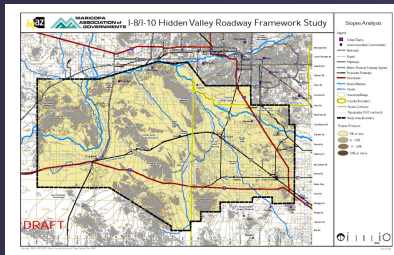
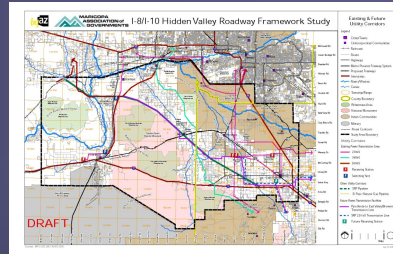
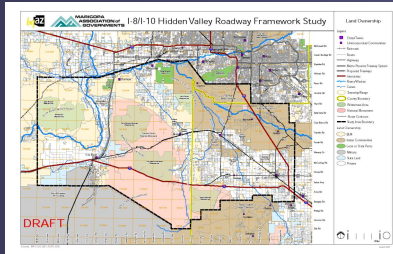
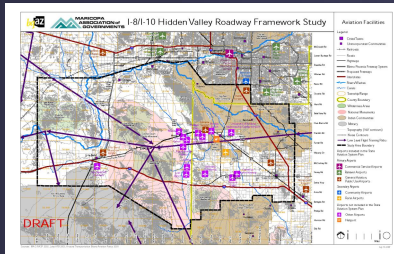
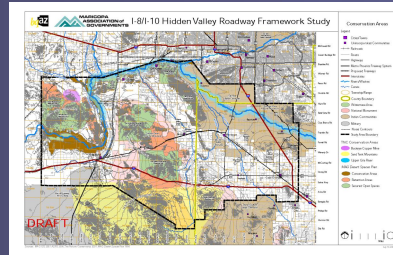
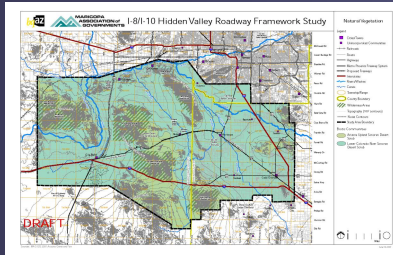
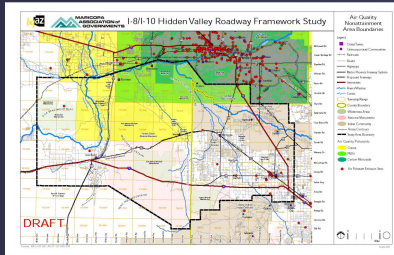
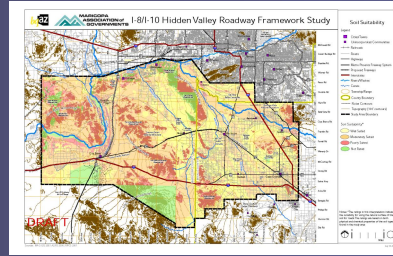
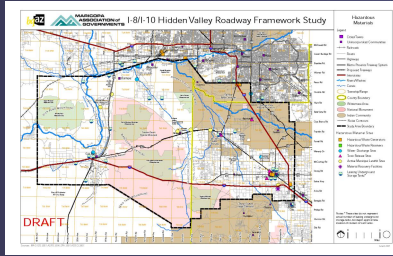
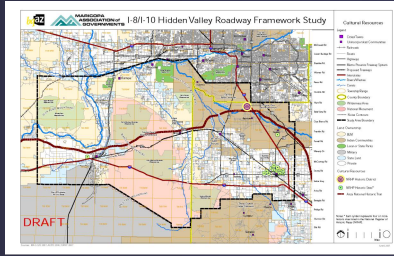
## **Interstates 8 and 10 – Hidden Valley**

# Study Area

## INTERSTATES 8 AND 10-HIDDEN VALLEY







# Environmental Scan

INTERSTATES 8 AND 10-HIDDEN VALLEY

- Cultural Resources
- Air Quality
- Aviation
- Slopes Analysis
- Hazardous Materials
- Natural Vegetation
- Land Ownership
- Major Economic Centers
- Title VI/Environ Justice
- Conservation Areas
- Utility Corridors
- Biological Resources
- Recreation Opportunities
- Wildlife Corridors



**“Always do right. This will gratify some people, and astonish the rest.”**

MARK TWAIN, AMERICAN AUTHOR

## For more information:

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